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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,615	02/06/2004	Jin-Sung Lee	678-1234 (P11102)	7749

28249 7590 04/12/2005
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EXAMINER

FORD, JOHN K

ART UNIT	PAPER NUMBER
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3753

DATE MAILED: 04/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/773,615

Applicant(s)

LEE ET AL.

Examiner

John K. Ford

Art Unit

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1/31/05
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) 3-5 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Applicant's election of the first species of Figure 5, without traverse, is acknowledged. Claims 1, 2 and 6 have been identified as readable on the elected species. Claims 3-5 are withdrawn at this time. Applicants apparently are all employed by Samsung and it is of concern that Samsung's JP 2001-93795 or its equivalent was not cited to the Examiner by applicants given that it shows a substantial portion of the independent claim to be well known. Are there any other relevant Samsung prior art publications related to wafer platens having an embedded vaporization/condensation cavity in the system?

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2001-93795 (Figs 22-27) in view of Hisai et al. (US 2003/0192686).

JP '795 (Figs 22-27) shows all of the claimed features except a cooling pipe in the cavity 515. A working fluid 540 is shown in the cavity 515. A heater is shown at 524 (Fig. 27). No cooling pipe is shown in cavity 515.

Hisai teaches in the type of working fluid heater disclosed by JP'795, using a cooled pipe 22 located in the sealed chamber containing the washing fluid. To have used such a cooling pipe in JP'795 to advantageously permit cooling of the semiconductor would have been obvious.

Claims 1, 2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2003-53741 (Figure 5) in view of Hisai et al. (US 2003/0192686).

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JP '741 shows a cooler 21 and a heater 14 arranged on the backside of a hollow heat transfer plate.

Hisai teaches a cooling pipe 22 located in the sealed chamber of a heat transfer plate.

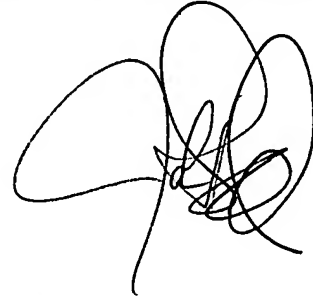
To have placed a cooling pipe 22 into hollow space 6 of JP '741 in place of element 21 would have been obvious to advantageously make the overall structure smaller and the cooling more efficient.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over any of the prior art as applied to claims 1, 2 and 6 above, and further in view of JP 4-338242.

Regarding the placement of the cooling pipe below the level of the working fluid as claimed in claim 2, JP '242 fairly teaches this at the right submerged heat exchanger.

Any inquiry concerning this communication should be directed to John Ford at telephone number (571) 272-4911.

Ford/PJ
04/05/05

A handwritten signature in black ink, appearing to be 'John K. Ford', with a large, stylized loop at the end.

John K. Ford
Primary Examiner